

Biochemistry: Protein structure
Homework for video (1)
Answers in video (2)

3. What is interesting about histidine? What is interesting about glycine? What is interesting about proline?

4. What are the bonds between amino acids in a peptide called? What type of functional group does the bond consist of?

Answer these questions **from memory**:

5. (a) Which amino acids are negatively charged at physiological pH? (b) Which amino acids are positively charged at physiological pH? (c) Which amino acids have aromatic side chains?

6. (a) Draw the structure of the following peptide at physiological pH:
arg-trp-glu-gln-cys-pro-val-leu-met

(b) Label all the peptide bonds.

(c) Label the N-terminus. Label the C-terminus.

(c) What is the net charge of this peptide at physiological pH? At pH=10? At pH=14? At pH=1?

7. What are some important characteristics of peptide bonds? Explain why the peptide bond has those characteristics.

You should continue to practice writing out all 20 amino acids, grouped according to the four types of side chain.